

#2

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RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/852,386

DATE: 05/31/2001  
 TIME: 17:05:47

Input Set : A:\00133.US1.ST25.txt  
 Output Set: C:\CRF3\05312001\I852386.raw

3 <110> APPLICANT: Roberds, Steven L.  
 4 Benjamin, Christopher  
 5 Karnovsky, Alla M.  
 6 Ruble, Cara L.  
 8 <120> TITLE OF INVENTION: Human Ion Channels  
 10 <130> FILE REFERENCE: 00133.US1  
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/852,386  
 C--> 12 <141> CURRENT FILING DATE: 2001-05-10  
 12 <150> PRIOR APPLICATION NUMBER: 60/203,305  
 13 <151> PRIOR FILING DATE: 2000-05-10  
 15 <150> PRIOR APPLICATION NUMBER: 60/207,092  
 16 <151> PRIOR FILING DATE: 2000-05-25  
 18 <150> PRIOR APPLICATION NUMBER: 60/206,526  
 19 <151> PRIOR FILING DATE: 2000-05-23  
 21 <150> PRIOR APPLICATION NUMBER: 60/207,033  
 22 <151> PRIOR FILING DATE: 2000-05-25  
 24 <150> PRIOR APPLICATION NUMBER: 60/207,093  
 25 <151> PRIOR FILING DATE: 2000-05-25  
 27 <150> PRIOR APPLICATION NUMBER: 60/216,893  
 28 <151> PRIOR FILING DATE: 2000-07-17  
 30 <150> PRIOR APPLICATION NUMBER: 60/237,873  
 31 <151> PRIOR FILING DATE: 2000-10-04  
 33 <150> PRIOR APPLICATION NUMBER: 60/223,245  
 34 <151> PRIOR FILING DATE: 2000-08-04  
 36 <160> NUMBER OF SEQ ID NOS: 88  
 38 <170> SOFTWARE: PatentIn version 3.0  
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 52 taaggtgggg gaatgtacaa acttttaaaa aagtctgtga gttcttttgt cagtatgcta 240  
 54 atttctctgc cactctccct ctttttcata tttctcacca gggatggga atattgctcc 300  
 56 gagcaactgaa ggaggcaaaa tcttttgtat tttatatgcc atctttggaa ttccactctt 360  
 58 tggtttctta ttggctggaa ttggagacca acttggaaacc atctttggga aaagcattgc 420  
 60 aagagtggag aagggtttc gagtgagtac tgtgtcatat ttaaattcta accactgcga 480  
 62 tccaattggc tttagcctga caggatccag gaggcagtat cagggcatt gtctgcttt 540  
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See p. 5

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81	agcctgggca	gaacggctga	acgcgggtgt	gcggcgctc	ctgttgggg	ccaagtgtg	240
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131	aatccctctg	ccgaaatctt	tccctgggt	ggacaaggtc	atgcacacat	agataacaacc	300
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137	gcccaactcc	ctccctccct	ggtaactgaa	gtcctggcc	tggctctgtt	cctgaccctg	480
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 191 cacttaatat gttcctgat cttggcagcc cctaaactga tggaggagac atggcccttc 660  
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 208 gatcgcaaga gtcctctctg gcattgcggg cagcacccgc tgtccatttt cctcaggatc 180  
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 233 gtactcactc gaaacacctt ctccactttt gcaatgcctt tcccaaaatg ggttccaagt 180  
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 247 <211> LENGTH: 628  
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256 ctcccatact ccccaactccc gccccagga gcctgtggga gaggcttatg gtcttgggg 180  
258 ggcgcgtcat gtgccaggga catggggaa ggtagccga gcccagcaca agggcaggca 240  
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264 cgcataaaaag atgcagaaga ggcgcggc atctgtgcgc agggccacat tgccatagcc 420  
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268 accttcccccc atgaggaagc tccttgcgc cccccacatg ccaatccccct ccccccacccg 540  
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295 taggatttgg aaacatagct cctaccacag atgtggagaa gatgttttgc gtggctatga 480  
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357	cttgcatttt	tgggaggaa	aggagtggaa	cagcttcctt	ttaggataag	gagcaactga	600
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403	gtcttctgt	gtcttctatg	ccctgttggg	catcccgctt	aacgtatct	tcctcaacca	240
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407	gcgctccca	gtatgcccc	taactccctt	acaggcctgc	tgtgacagat	ctgttgcaag	360
409	tggagttccc	cagaagccg	tgctgagatg	gatgttggca	tgcattgtgt	taggggtaga	420
411	tgcctgtgaa	agaggaaggg	tgaaggcagg	gttggcaga	gtggggagtt	ggatctctat	480
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426	cacaccctag	gcctgattga	ggcaggat	aaaacctggc	tggccggcc	cactgtggaa	120

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/852,386

DATE: 05/31/2001

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Input Set : A:\00133.US1.ST25.txt  
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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:1356 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45  
L:1359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45  
L:1456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49  
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